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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105113

DATE: February 22, 2008

SUBJECT: Review of Analytical Data, **Tier 2**

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC QB02
CERCLIS ID No.:	CAD042245001
Case No.:	Not Provided
SDG No.:	IQG0718, IQG1348, IQG1624, IQG1948, IQG2103, IQG2320, and IQG2442
Laboratory:	Test America Analytical Testing Corp.
Analysis:	n-Nitrosodimethylamine (NDMA)
Samples:	30 Water Samples (see Case Summary)
Collection Dates:	July 10, 16, 18, 20, 23, 25, and 26, 2007
Reviewer:	April Martinez, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: [X] Yes [ ] No

Data Validation Report - **Tier 2**

Case No.: Not Provided
SDG No.: IQG0718, IQG1348, IQG1624, IQG1948, IQG2103, IQG2320, and IQG2442
Site: Omega Chem OU2
Laboratory: Test America Analytical Testing Corp.
Reviewer: April Martinez, ESAT/LDC
Date: February 22, 2008

I. CASE SUMMARY

Sample Information

Samples:	(SDG IQG0718) OC2-MW25D-W-0-582, OC2-MW25C-W-0-583, OC2-MW25B-W-0-584, OC2-MW25A-W-0-585 (SDG IQG1348) OC2-MW30-W-0-600, OC2-MW28-W-0-601, OC2-MW7-W-0-602 (SDG IQG1624) OC2-MW17C-W-5-609, OC2-MW17B-W-0-610, OC2-MW17A-W-0-611, OC2-MW6-W-0-612, OC2-MW5-W-0-613 (SDG IQG1948) OC2-MW18C-W-0-619, OC2-MW18B-W-0-620, OC2-MW18A-W-0-621, OC2-MW10-W-0-622 (SDG IQG2103) OC2-MW16C-W-0-623, OC2-MW16B-W-0-624, OC2-MW16A-W-0-625, OC2-MW16A-W-1-626, OC2-MW11-W-0-627 (SDG IQG2320) OC2-MW1B-W-5-632, OC2-MW1A-W-0-633, OC2-MW9B-W-0-634, OC2-MW9A-W-0-635, OC2-MW19-W-0-636 (SDG IQG2442) OC2-MW13B-W-0-637, OC2-MW2-W-0-639, OC2-MW22-W-0-640, OC2-MW21-W-0-641
Concentration and Matrix:	Low Concentration Water
Analysis:	NDMA (GC/MS/MS CI)
SOW:	1625 Modified
Collection Date:	July 10, 16, 18, 20, 23, 25, and 26, 2007
Sample Receipt Date:	July 10, 16, 17, 20, 23, 25, and 28, 2007
Extraction Date:	July 12, 17, 23, 24, 26, 29, 31, 2007 and August 1 and 2, 2007
Analysis Date:	July 14, 19, 25, 28, 31, 2007 and August 1, 3, and 4, 2007

Field QC

Field Blanks (FB):	Not Provided
Trip Blanks (TB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	OC2-MW16A-W-0-625 and OC2-MW16A-W-1-626

Laboratory QC

Method Blanks & Associated Samples:

7G12056-BLK1:	OC2-MW25D-W-0-582, OC2-MW25C-W-0-583, OC2-MW25B-W-0-584, OC2-MW25A-W-0-585
7G17059-BLK1:	OC2-MW28-W-0-601, OC2-MW7-W-0-602
7G23092-BLK1:	OC2-MW30-W-0-600

7G24063-BLK1:	OC2-MW17C-W-5-609, OC2-MW17B-W-0-610, OC2-MW17A-W-0-611, OC2-MW6-W-0-612, OC2-MW5-W-0-613
7G26157-BLK1:	OC2-MW18C-W-0-619, OC2-MW18B-W-0-620, OC2-MW18A-W-0-621, OC2-MW10-W-0-622
7G29035-BLK1:	OC2-MW16C-W-0-623, OC2-MW16B-W-0-624, OC2-MW16A-W-0-625, OC2-MW16A-W-1-626, OC2-MW11-W-0-627
7G31069-BLK1:	OC2-MW1B-W-5-632
7H01065-BLK1:	OC2-MW1A-W-0-633, OC2-MW9B-W-0-634, OC2-MW9A-W-0-635, OC2-MW19-W-0-636
7H02078-BLK1:	OC2-MW13B-W-0-637, OC2-MW2-W-0-639, OC2-MW22-W-0-640, OC2-MW21-W-0-641

Tables

1B: Data Qualifier Definitions for Organic Data Review

Sampling Issues

Samples collected on 07/16/07 were received by the laboratory with a cooler temperature of 6.8°C which exceeds the 4±2°C sample preservation criterion. No adverse effect on data quality is expected since the cooler temperature is below 10°C.

Additional Comments

As directed by the TOM, a Tier 2 validation (i.e., review all QC results and calibrations, minus calculation check) was performed. A Table 1A is not requested.

Decafluorotriphenylphosphine (DFTPP) was not analyzed. Since NDMA is analyzed by the chemical ionization (CI) technique, no adverse effect is expected.

Although the laboratory control sample (LCS) 7G31069-BS1 recovery (166%) was above the laboratory QC limit of 60-140%, no data should be qualified since the result for the associated sample OC2-MW1B-W-5-632 was a nondetect.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*;
- EPA Method 1625C, *Semivolatile Organic Compounds by Isotope dilution GC/MS*, June 1989; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, July 2007.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Holding Time/Preservation	Yes	
2.	GC/MS and GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	N/A	
7.	Labeled Compound (Method 1625)	No	B
8.	Matrix Spike/Matrix Spike Duplicate	Yes	
9.	Laboratory Control Samples/Duplicate	Yes	
10.	Internal Standard	No	A
11.	Compound Identification	Yes	
12.	Compound Quantitation	Yes	
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The following results are qualified as estimated due to low internal standard areas and should be flagged "J".

- NDMA in samples OC2-MW1A-W-0-633, OC2-MW9B-W-0-634, OC2-MW9A-W-0-635, OC2-MW13B-W-0-637, OC2-MW2-W-0-639, OC2-MW22-W-0-640, and OC2-MW21-W-0-641

Internal standard areas outside QC limits are shown below.

Sample	Internal Standard	Area	QC Limit
OC2-MW1A-W-0-633	NDMA-d6	666	855-3418
OC2-MW9B-W-0-634	NDMA-d6	774	855-3418
OC2-MW9A-W-0-635	NDMA-d6	783	855-3418
OC2-MW13B-W-0-637	NDMA-d6	964	1234-4934
OC2-MW2-W-0-639	NDMA-d6	877	1234-4934
OC2-MW22-W-0-640	NDMA-d6	897	1234-4934
OC2-MW21-W-0-641	NDMA-d6	787	1234-4934

Where results are nondetected, false negatives may exist. The samples were not reanalyzed.

Internal standards, introduced into every calibration standard, blank, sample, and QC sample, monitor changes in analyte response due to matrix effects and fluctuations in instrument sensitivity throughout the analytical sequence. Internal standards are used to quantitate the concentration of target analytes and surrogate standards.

B. The laboratory did not spike the samples, QC samples, and method blanks with a labeled compound (i.e., surrogate; see Method 1625C Sections 6.8, 10.2.1.3, and 10.2.3.2 and Figure 4). Consequently, the extraction efficiency (surrogate recovery) cannot be evaluated. The NDMA-d6 spiked by the laboratory was used as an internal standard.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," July 2007.

U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.

R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.